CLAIMS

What is claimed is:

1. A joint connection comprising:

a plate assembly;

a support member ;

a pin connection assembly;

the support member having a flange end connector and a hole for receiving the pin connection assembly;

the plate assembly having at least one connection plate having a hole for aligning with the hole in the support member and for receiving the pin connection assembly; and

the plate assembly having a curved flange end connector that abuts against the flange end connection of the support member and is secured against the flange end connector of the support member, the curvature of the curved flange end connector of the plate assembly generally matches the curvature of the flange end connector of the support member.

2. The joint connection of claim 1 where the support member is a beam.

3. The joint connection of claim 1 where the support member is a column.

4. The joint connection of claim 1 further comprising a shim positioned between the flange end connector of the plate assembly and the flange end connector of the support member.

5. The joint connection of claim 4 where the shim is made of brass.

6. The joint connection of claim 4 where the shim is made of steel.

7. The joint connection of claim 4 where the shim is made of teflon.

8. The joint of claim 4 where the shim is made of bronze.

9. The joint connection of claim 1 where the plate assembly and support member are made of structural steel.

10. The joint connection of claim 1 where the plate assembly and support member are made of composite material.

11. The joint connection of claim 1 where the pin assembly comprises a cut structural steel pipe, caps plates positioned on each side of the structural steel pipe and a high-strength steel bolt that extends through the structural steel pipe and the cap plates.

12. The joint connection of claim 11 where the steel pipe includes a web stiffener having a hole for receiving the high-strength steel bolt.

13. The joint connection of claim 1 where the curved flange end connector is secured against the curved flange end connector of the support member via at least one high-strength bolt.

14. A method for constructing a joint subject to seismic loading conditions by providing two opposing support members having generally curved end connections that match the curvature of one another and securing the two opposing support members together such that one support member is allowed to rotate relative to the other support member about the curved end connection when subject to extreme loading conditions.

15. The method for constructing a joint subject to seismic loading conditions of claim 14, where the curved ends of the two opposing support members are secured to one another via high-strength bolts.

16. The method for constructing a joint subject to seismic loading conditions of claim 14, where a shim is placed between the curved end connections of the two opposing support members to achieve a predictable slip threshold.

17. The method for constructing a joint subject to seismic loading conditions of claim 14 where the two opposing supporting member are connected to one another via a pin connection.

18. The method for constructing a joint subject to seismic loading conditions of claim 17, where the shim is made of brass.

19. The method for constructing a joint subject to seismic loading conditions of claim 17, where the shim is made of steel.

20. The method for constructing a joint subject to seismic loading conditions of claim 17, where the shim is made of teflon.

21. The method for constructing a joint subject to seismic loading conditions of claim 17, where the shim is made of bronze.